

2016 Pollution Prevention (P2) Intern Program

K-State Engineering Extension
Pollution Prevention Institute



Background

- Eleventh year of program (2006 Pilot year)
- Partnership with EPA, KDHE, Engineering Extension
- Supported by
 - K-State faculty

Purpose

- Designed to link top-level engineering and environmental sciences students with business and industry. These collaborations will focus on projects to reduce industrial emissions and wastes, while benefiting the Kansas environment.



Real-world industry experience



Real-World Impacts

- Waste diverted
- Energy saved
- Emissions reduced
- Dollars saved
- Water conserved



Environmental Results

| IMPACTS | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Total |
|--|-------|-------|--------|-------|-------|-------|-------|-------|--------|-------|--------|
| Water (million gallons) | N/A | 25.4 | 187.1 | 9.9 | 22.2 | 6.0 | 11.8 | 7.8 | N/A | 10.2 | 280 |
| Waste (tons) | 1,025 | 5,506 | 1,707 | 6,720 | 585 | 318 | 126 | 519 | N/A | N/A | 16,500 |
| Energy (MWh) | 1,533 | 7,066 | 26,019 | 8,705 | 6,158 | 5,723 | 6,548 | 4,322 | 487 | 2,859 | 69,422 |
| Operating/ disposal \$ (million \$) | \$0.4 | \$1.5 | \$3.5 | \$0.9 | \$1.2 | \$0.6 | \$0.7 | \$1.8 | \$0.05 | \$0.4 | \$11.0 |
| Greenhouse Gases (MTCO ₂ e) | 1,089 | 5,079 | 18,921 | 6,207 | 7,080 | 3,996 | 2,608 | 4,260 | 346 | 2,843 | 52,400 |

- Implementation rate – 66% (soon to be 75%)

Types of Projects (2015)

➤ 249 projects

- Energy – 139 (65%)
- Water – 50 (20%)
- Waste – 44 (18%)
- Natural Gas – 10 (4%)
- Chemical Replacement – 1 (0.4%)
- Diesel – 1 (0.4%)

➤ Energy-related Projects – 199 (80%)

Host Companies

- **Haldex Brake***
- Columbian Chemicals Company
- Frontier Refining
- The Monarch Cement Company
- **Frito-Lay**
- Hallmark Cards
- Philips Lighting
- **Schwan's Global Supply**
- **Wolf Creek Nuclear Operation Corp.**
- **Via Christi**
- CertainTeed
- Unilever Foodsolutions
- Florence Manufacturing
- Associated Wholesale Grocers
- GTM Sportswear
- Compass Minerals
- K-State
- Robbie Fantastic Flexibles
- **The Coleman Company**
- Deffenbaugh Industries
- Johnson County Community College
- Prairie Band Potowotami Nation
- Associated Purchasing Services
- Bombardier Aerospace Learjet
- **CST Storage**
- Hill's Pet Nutrition
- Kansas Army National Guard
- Kickapoo Tribe in Kansas
- **Mercy Regional Health Center**
- Capstan Ag
- **Dillon's**

*Companies participating multiple years

Program Elements

- Pollution prevention training at K-State (Industrial Sustainability, Jan 2017)
- Placement x 10 weeks
- Support
 - Technical assistance
 - Site visit
 - Listserve
 - Equipment
- Intern retreat
- Final reports and presentations

Cost to Company

- \$17/hour, plus fringe
- 7,480, assuming 40hrs/week*11weeks
- Charged only for hours worked (verified by company)

Schedule of Events

- Dec 15: applications due
 - \$7,480 (\$17/hr for 11 weeks), plus fringe
 - Terms and agreements
- Jan 12-14: intersession course (training)
- Feb 6-10: interview potential interns
- Feb 13-24: select interns, pair w/host companies, and make offers
- Mar 5-9: confirm interns
- May 26-Aug 3: interns with host companies
- Late July: draft report
- Early August: final report
- Mid-September: K-State presentations

Contact Information

Questions or recommendations?

Applications due **December 15th**

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